

Regulatory Impact Report

Program Air Pollution Control Program

Rule number 10 CSR 10-6.360, 10 CSR 10-6.380, 10 CSR 10-6.390

Rule title Control of NOx Emissions From Electric Generating Units and Non-Electric Generating Boilers, Control of NOx Emissions From Portland Cement Kilns, Control of NOx Emissions From Large Stationary Internal Combustion Engines

Type of rule : New Amendment Rescission Emergency

Nature of the rule :

Affects environmental conditions

Prescribes environmental standards

Administrative

Other Conditions

Submitted by _____ Date _____
Leanne Tippet Mosby, APCP Program Director

Review and approval

Legal Counsel _____ Date _____

Division Director _____ Date _____

1. What is the purpose of this proposed rulemaking?

The purpose of this rulemaking is to establish requirements in compliance with the federal Oxides of Nitrogen (NOx) State Implementation Plan (SIP) Call Rule. The NOx SIP call was designed to mitigate significant transport of NOx, one of the precursors of ozone.

2. Why is the rulemaking being proposed now?

The U. S. Environmental Protection Agency (EPA) final Phase II of the Oxides of Nitrogen (NOx) State Implementation Plan (SIP) Call Rule on April 21, 2004, requires the eastern one-third of Missouri to submit a SIP by April 1, 2005. Failure to adopt these rulemakings will cause EPA to implement a Federal Implementation Plan on these categories. A federal plan would require emission controls for Missouri's affected industries.

3. Is this rule or rule amendment an adoption of federal mandates without variance?

_____ Yes

X No

4. What authority does DNR have to carry out this rulemaking?

The DNR has the following authority to carry out these rulemakings:

643.050, Powers and duties of commission, provides the commission shall have the power to adopt, promulgate, amend and repeal rules and regulations consistent with the general intent and purposes of sections 643.010 to 643.190, RSMo and chapter 536, RSMo.

643.055, Commission may adopt rules for compliance with federal law, provides the commission shall have authority to promulgate rules and regulations to establish standards and guidelines to ensure the state is in compliance with the provisions of the federal Clean Air Act. The state is prohibited from being stricter than the federal Clean Air Act except for nonattainment and maintenance areas.

5. What does the rulemaking require and how does it produce benefits?

The EPA's NO_x SIP call is designed to assist downwind ozone areas in attaining the 1-hour and 8-hour national ambient air quality standards for ozone by providing upwind NO_x emission control. The SIP shall contain adequate provisions prohibiting sources from emitting air pollutants in amounts that will contribute significantly to nonattainment, or interfere with maintenance, in one or more downwind states. The controls prescribed in each of these rules must be in place by the compliance deadline of May 1, 2007.

6. Does this rulemaking qualify as an emergency rulemaking under Section 536.025.1 RSMO?

_____ Yes

X No

7. Were any assumptions made while developing the rulemaking?

The NO_x SIP call establishes a NO_x emission cap for Electric Generating Units (EGUs) located in the eastern one-third of Missouri. There are no emission caps established for

large stationary Internal Combustion (IC) engines and Portland cement kilns; however, the state is required to demonstrate that the emission controls will meet EPA's 2007 overall emission budget projections. Cement kilns with NO_x emissions greater than 1 ton per day will be required to reduce emissions by 30% from 2007 base levels and large stationary IC engines will be required to reduce emissions by 90%. These sources were not recommended for inclusion in the NO_x emission-trading program but are allowed to opt-in to a federal trading program. The non-EGU boiler component of the EPA-recommended cap-and-trade control program contains boilers above 250 million British thermal units per hour (MMBTU/hr) rated capacity. The base emissions from non-EGU boilers are calculated based on the Ozone Transport Assessments Group (OTAG) base year inventory. The budget is calculated by a presumed 60% reduction from the 2007 base inventory.

Missouri is required to allocate allowances to EGUs. Sources may purchase allowances or reduce emissions. One allowance equals one ton. EPA will administer a national allowance and trading system. Any other facilities, such as cement kilns and internal combustion engines, will be allowed to opt-in to the trading program provided that their emissions can be verified with a proper monitoring program.

This rulemaking will adopt the EPA model trading rules contained in the SIP call. While the new source and energy efficiency set aside allowances are optional in the model rule, the Missouri Department of Natural Resources' Air Pollution Control Program will attempt to include energy efficiency and energy conservation provisions in the Missouri NO_x SIP.

8. Who is most likely affected by the rulemaking?

This rulemaking will impact approximately seventeen (17) EGUs that have design capacity greater than twenty five (25) megawatts, three (3) non-electric generating boilers with a design capacity of greater than 250 million British thermal units per hour, possibly one (1) IC engine and five (5) cement kilns. However, additional sources may be affected by this rulemaking in order to meet the overall budget for the eastern one-third of Missouri.

9. What are the probable costs for the department or any other agency in the implementation and enforcement of the rulemaking?

Neither the department or any other agency should incur any additional cost from these rule actions.

10. Does this proposed rulemaking have an impact on small businesses? A small business is a for profit enterprise with fewer than 50 full or part-time employees.

_____ Yes

☒ No

11. Does this proposed rulemaking substantially codify existing federal or state law?

☐ Yes

☒ No

11a. How did the department involve small businesses in the development of the proposed rule?

Not applicable.

11b. What are the probable monetary costs and benefits to the department and other agencies directly affected including the estimated total amount the department expects to collect from any additionally imposed fees and the manner in which the moneys will be used, if such costs are capable of determination?

Not applicable.

11c. Describe the small businesses that will be required to comply with the proposed rule and how they may be adversely affected. This does not need to be done in cases where the department has filed a fiscal note that complies with all of the provision of section 536.205.

Not applicable.

11d. Provide the dollar amount the increase in the level of direct costs, such as fees or administrative penalties, and indirect costs such as reporting, record keeping, equipment, construction, labor, professional services, revenue less or other costs associated with compliance if such costs are capable of determination. This does not need to be done in cases where the department has filed a fiscal note that complies with all of the provision of section 536.205.

Not applicable.

12. Does the rulemaking have any anticipated effect on state revenue?

No. We do not expect any additional costs to the state. Existing staff will pick up the increased workload.

13. Who was involved in developing the rulemaking?

In anticipation of the final NOx SIP call, the department's Air Pollution Control Program has held several stakeholder meetings with many of the affected sources since 1999. Recently, the utility workgroup reconvened to discuss the implementation of the NOx SIP call. A summary of the July 22, 2004, meeting notice is attached with this document. The department's Air Pollution Control Program will continue to hold additional workgroup meetings throughout the development of these rulemakings.

14. How has the development of the rulemaking been shared with interested parties and public at large?

Since the department's Air Pollution Control Program is adopting the EPA model rules, these rules have been available to the public through EPA's notice and comment rulemaking process. The EGU Rulemaking was announced at the Air Program Advisory Forum. The rest of the model rules are being reviewed and will be disseminated to the public. Staff expects to work directly with all affected facilities. The department's Air Pollution Control Program will follow the established rulemaking process that includes publishing the Regulatory Impact Report and draft rule text on the program website, publishing the proposed rule actions in the Missouri Register and concludes at the end of the public comment period.

15. Who may I contact to either ask questions or provide input on this rulemaking?

Questions and/or written comments can be sent to:
Chief, Operations Section
Missouri Department of Natural Resources
Air Pollution Control Program
PO Box 176
Jefferson City, MO 65102-0176

Or

Missouri Air Conservation Commission (MACC)
PO Box 176
Jefferson City, MO 65102-0176

Or email: Cleanair@dnr.mo.gov or call: (573) 751-4817

16. What is the draft schedule for this rulemaking?

The draft Schedule for this rulemaking is:
Public hearing- 3/31/05; MACC adoption- 4/28/05; Effective date- 8/30/05

Complete these additional questions for rulemaking affecting environmental conditions or standards as part of the Regulatory Impact Report.

17. What peer-reviewed, published or other scientific information was used to develop the rulemaking?

The NO_x SIP call was developed through the EPA's interpretation of the Ozone Transport Assessment Group (OTAG) recommendations and subsequent modeling and cost analysis of NO_x controls to reduce ozone transport. To evaluate the impacts from each upwind state, the EPA relied on OTAG subregional modeling, state-by-state zero-out Urban Airshed Model-V (UAM-V) modeling, and Comprehensive Air Quality Model with Extensions (CAMx) source apportionment modeling. The test for significant contribution from the CAMx and UAM-V zero-out modeling included the magnitude of contribution, the frequency of contribution, and the relative amount of contribution.

The EPA's modeling showed that Missouri contributes to 1-hour nonattainment in Illinois, Indiana, Michigan, and Wisconsin (the Lake Michigan area). In addition, the EPA's modeling showed that only Illinois and Kentucky contribute to 1-hour nonattainment in Missouri. The model estimated that Missouri contributes to 8-hour nonattainment in Illinois, Indiana, Kentucky, Michigan, Ohio, Pennsylvania, Tennessee, and Wisconsin. States that modeled contribution to 8-hour nonattainment in Missouri include Alabama, Georgia, Illinois, Indiana, Kentucky, and Tennessee. Additional information can be found at www.epa.gov/ttn/naaqs/ozone/rto/sip, an EPA website.

18. Are there any significant countervailing risks that may be caused by this rulemaking?

There are no significant countervailing risks caused by these rulemakings.

19. Are there other ways these public benefits could be obtained?

The NO_x SIP call is a mandatory federal requirement.

20. Is there a less costly or less intrusive method to provide the public benefits provided in this proposed rule?

The federal banking and trading program is widely believed to be the most cost effective method to reduce emissions. For example an EGU will have the flexibility to either implement an incremental emission reduction or buy allowances.

21. What are the environmental and economic costs and benefits of the rulemaking?

The NO_x SIP call was developed to aid in the attainment and maintenance of the national ambient air quality standard for ozone. The rulemakings proposed in this document will complete the requirements of the NO_x SIP call. The ambient impact of these rulemakings is anticipated to be greatest on downwind states. However, there will be some impact on

St. Louis. While expensive when taken as a whole, it is believed that reducing NOx emissions may be more effective and less costly than controlling local emissions of volatile organic compounds. NOx is also a precursor of fine particle pollution, and reductions of NOx emissions are expected to help reduce the concentration of fine particles in the ambient air in St. Louis. The St. Louis area is expected to be designated as nonattainment for fine particles in December of 2004, and the NOx controls implemented in this rulemaking will assist in meeting future fine particle and ozone SIP demands.

The department's Air Pollution Control Program expects the cost of this rulemaking to be significant. The EPA has based this rulemaking on a cost effectiveness of \$2000 per ton of NOx reduced. The estimated NOx emission reduction from the eastern one-third of Missouri is 31,291 tons during the 2007 ozone season. Using the \$2000 per ton of NOx as an average this equates to a private entity cost of approximately \$62,582,000.

22. How can I provide formal comments on the Regulatory Impact Report before the rule is provided to the Secretary of State?

Formal comments can be provided on either the Regulatory Impact Report or the proposed rulemaking by sending them to the contact listed under question 15 of this report.

23. How can I get copies of the formal comments made on the Regulatory Impact Report?

Copies of formal comments made on either the Regulatory Impact Report or the draft rule text may be obtained by request from the contact listed under question 15 of this report or by accessing the Rules In Development section at website www.dnr.mo.gov/alpd/apcp/homeapcp.htm for this particular rulemaking.

Attachment

Utility Subcommittee Workgroup Meeting
July 22, 2004

Attendees:

Todd Tolbert (AECI)
Randal Pick (Sikeston)
Ken Anderson (Ameren)
Jon Knodel (EPA)
Lee Daniels (EPA)
Brenda Wilbers (Energy Center)
John Noller (Energy Center)
Mike Van Cleave (APCP)
Denny Vendt (APCP)
Kelen Shostak (APCP)
Pam Muren (APCP)
Ben Elmore (APCP)
Jeff Bennett (APCP)
Refaat Mefrakis (APCP)

Summary:

After introductions the meeting began with discussion on the revised NOx banking and trading state rule 10 CSR 10-6.350. The U.S. Environmental Protection Agency (EPA) has not yet approved the rule as they have several outstanding issues with regards to this rule meeting the requirements of the NOx SIP Call. Instead of attempting to revise this rule to meet the requirements of the NOx SIP Call, the Air Pollution Control Program proposed a cleaner method, that of promulgating a new rule and asked for input from the utility representatives. EPA also agreed that the majority of the issues preventing their approval of state rule 10 CSR 10-6.350 would be resolved by promulgating a new rule that met the requirements of the NOx SIP Call.

The next item on the agenda was further discussion regarding FIP. At this time, the utility representatives agreed to support the state in a rulemaking and forego a FIP.

The strawman proposal was then discussed. The strawman proposal is a copy of the model rule proposed by EPA in 40 CFR part 96, with some alterations for Missouri. The utility representatives agreed to review the rule and email suggested changes and revisions to the program within ten days. The utilities stated their positions as the following:

1. They support allocating the 13,400 budget once for the life of the rule. As the Clean Air Interstate Rule (CAIR) is proposed to become effective 2010, the life of this NOx SIP Call rule will be short.
2. They support using the 1995 heat input to determine the allowance distribution.
3. They support distributing all of the compliance supplement pool to the affected utilities in the same manner as the allowances.
4. They do not support the creation of a set aside account for new growth. It is very improbable that a new utility source would be built in this region before CAIR supersedes this rule. In all probability, growth would only occur at the current facilities.
5. They do not support the creation of a set aside account for energy efficiency for several reasons. First, the utilities stated that they already have many similar projects underway. Also, with CAIR becoming effective and superseding this rule in 2010, there isn't a need for a set aside for those few years when those allowances would be more useful to utilities as they spend the money to develop a technology that will better clean the air and meet the more stringent requirements of CAIR. In addition, only 5 or 6 other states included in the NOx SIP Call have set aside accounts for energy efficiency.

The Energy Center distributed draft language for an energy efficiency/renewable energy set-aside for inclusion in the strawman proposal, EPA guidances and information about other states adopting set-asides for energy efficiency. The Energy Center proposed a small set-aside in the Nox SIP rule to facilitate energy efficiency and renewable energy initiatives undertaken by others, to gain experience in implementing a set-aside in preparation for CAIR and because of the benefits of energy efficiency and renewable energy to the environment. There was some discussion about the amount of the set-aside and how the set-aside is implemented in other states. The Energy Center will provide additional information to the group on this. APCP requested that we send them the draft language electronically.

Those present at the meeting committed to review the strawman proposal and offer recommendations. The program committed to revise the proposal, taking into consideration the workgroups recommendations, and create a working draft of the rule to be presented at the next subcommittee meeting in early September.